

# SEQUENCE LISTING

<110> Fisher, Paul B.

<120> COMBINATORIAL METHODS FOR INDUCING  
CANCER CELL DEATH

<130> A34466-A-PCT-USA-A

<140> To Be Assigned

<141> 2004-02-20

<150> PCT/US02/26454

<151> 2002-08-19

<150> US 09/933,115

<151> 2001-08-20

<160> 17

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1700

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (275)...(895)

<223> CDS = 275-895

<400> 1

```

cttgctgca aacctttact tctgaaatga cttccacggc tgggacggga accttccacc 60
cacagctatg cctctgattg gtgaatggtg aagggtgcctg tctaactttt ctgtaaaaag 120
aaccagctgc ctccaggcag ccagccctca agcatcactt acaggaccag agggacaaga 180
catgactgtg atgaggagct gctttcgcca atttaacacc aagaagaatt gaggctgctt 240
gggaggaagg ccaggaggaa cacgagactg agagatgaat tttcaacaga ggctgcaaag 300
cctgtggact ttagccagac ccttctgccc tcctttgctg gcgacagcct ctcaaagtgc 360
gatggttggtg ctcccttgcc tgggttttac cctgcttctc tggagccagg tatcaggggc 420
ccagggccaa gaattccact ttgggccctg ccaagtgaag ggggttggtc ccagaaaact 480
gtgggaagcc ttctgggctg tgaaagacac tatgcaagct caggataaca tcacgagtgc 540
ccggctgctg cagcaggagg ttctgcagaa cgtctcggat gctgagagct gttaccttgt 600
ccacaccctg ctggagttct acttgaaaac tgttttcaaa aactaccaca atagaacagt 660
tgaagtcagg actctgaagt cattctctac tctggccaac aactttgttc tcatcgtgtc 720
acaactgcaa ccagtcagg aaaatgagat gttttccatc agagacagtg cacacaggcg 780
gtttctgcta ttccggagag cattcaaaca gttggacgta gaagcagctc tgaccaaaagc 840
ccttggggaa gtggacattc ttctgacctg gatgcagaaa ttctacaagc tctgaatgtc 900
tagaccagga cctccctccc cctggcactg gtttggtccc tgtgtcattt caaacagtct 960
cccttcctat gctgttcact ggacacttca cgcccttggtc catgggtccc attcttggcc 1020
caggattatt gtcaaagaag tcattcttta agcagcgcca gtgacagtca gggaagggtgc 1080
ctctggatgc tgtgaagagt ctacagagaa gattcttgta tttattacaa ctctatttaa 1140
ttaatgtcag tattttcaact gaagttctat ttatttgtga gactgtaagt tacatgaagg 1200
cagcagaata ttgtgcccc tgcctcttta cccctcaca tccttgccac agtgtggggc 1260

```

```

agtggaatggg tgcttagtaa gtacttaata aactgtggtg ctttttttgg cctgtctttg 1320
gattgttaaaa aaacagagag ggatgcttgg atgtaaaact gaacttcaga gcatgaaaat 1380
cacactgtct gctgatatct gcagggacag agcattgggg tgggggtaag gtgcatctgt 1440
ttgaaaagta aacgataaaa tgtggattaa agtgcccagc acaaagcaga tcctcaataa 1500
acatttcatt tcccaccac actcgccagc tcaccccatc atccctttcc cttggtgccc 1560
tccttttttt tttatcctag tcattcttcc ctaatcttcc acttgagtgt caagctgacc 1620
ttgctgatgg tgacattgca cctggatgta ctatccaatc tgtgatgaca ttccctgcta 1680
ataaaagaca acataactca                                     1700

```

```

<210> 2
<211> 206
<212> PRT
<213> Homo sapiens

```

```

<400> 2
Met Asn Phe Gln Gln Arg Leu Gln Ser Leu Trp Thr Leu Ala Arg Pro
 1           5           10           15
Phe Cys Pro Pro Leu Leu Ala Thr Ala Ser Gln Met Gln Met Val Val
          20           25           30
Leu Pro Cys Leu Gly Phe Thr Leu Leu Leu Trp Ser Gln Val Ser Gly
        35           40           45
Ala Gln Gly Gln Glu Phe His Phe Gly Pro Cys Gln Val Lys Gly Val
        50           55           60
Val Pro Gln Lys Leu Trp Glu Ala Phe Trp Ala Val Lys Asp Thr Met
65           70           75           80
Gln Ala Gln Asp Asn Ile Thr Ser Ala Arg Leu Leu Gln Gln Glu Val
          85           90           95
Leu Gln Asn Val Ser Asp Ala Glu Ser Cys Tyr Leu Val His Thr Leu
        100          105          110
Leu Glu Phe Tyr Leu Lys Thr Val Phe Lys Asn Tyr His Asn Arg Thr
        115          120          125
Val Glu Val Arg Thr Leu Lys Ser Phe Ser Thr Leu Ala Asn Asn Phe
        130          135          140
Val Leu Ile Val Ser Gln Leu Gln Pro Ser Gln Glu Asn Glu Met Phe
145          150          155          160
Ser Ile Arg Asp Ser Ala His Arg Arg Phe Leu Leu Phe Arg Arg Ala
        165          170          175
Phe Lys Gln Leu Asp Val Glu Ala Ala Leu Thr Lys Ala Leu Gly Glu
        180          185          190
Val Asp Ile Leu Leu Thr Trp Met Gln Lys Phe Tyr Lys Leu
        195          200          205

```

```

<210> 3
<211> 20
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (0)...(0)
<223> primer for mda-7

```

```

<400> 3
atgctctgtc cctgcagata

```

```

<210> 4

```

<211> 20  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (0)...(0)  
<223> primer for MDA-7

<400> 4  
ctctggatgc tgtgaagagt

20

<210> 5  
<211> 12  
<212> PRT  
<213> Homo sapiens

<220>  
<223> 153-164 of human MDA-7

<400> 5  
Pro Ser Gln Glu Asn Glu Met Phe Ser Ile Arg Asp  
1 5 10

<210> 6  
<211> 5775  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (193)...(759)  
<223> CDS = 193-759

<400> 6  
tcctaggcgg cgccgcggc ggccggaggca gcagcggcgg cggcagtggc ggccggcgaag 60  
gtggcggcgg ctccggccagt actcccggcc cccgccatth cggactggga gcgagcgcgg 120  
cgcaggcact gaaggcggcg gcggggccag aggctcagcg gctcccaggt gcgggagaga 180  
ggcctgctga aaatgactga atataaactt gtggtagttg gagcttgtgg cgtaggcaag 240  
agtgccctga cgatacagct aattcagaat cattttgtgg acgaatatga tccaacaata 300  
gaggattcct acaggaagca agtagtaatt gatggagaaa cctgtctctt ggatattctc 360  
gacacagcag gtcaagagga gtacagtgcg atgagggacc agtacatgag gactggggag 420  
ggctttcttt gtgtatttgc cataaataat actaaatcat ttgaagatat tcaccattat 480  
agagaacaaa ttaaaagagt taaggactct gaagatgtac ctatggtcct agtaggaaat 540  
aaatgtgatt tgccttctag aacagtagac acaaacagg ctcaggactt agcaagaagt 600  
tatggaattc cttttattga aacatcagca aagacaagac aggggtgttg tgatgccttc 660  
tatacattag ttcgagaaat tcgaaaacat aaagaaaaga tgagcaaaaga tggtaaaaag 720  
aagaaaaaga agtcaaaagac aaagtgtgta attatgtaaa tacaatttgt acttttttct 780  
taaggcatag tagtacaagt ggtaattttt gtacattaca cttaaattatt agcattttgtt 840  
ttagcattac ctaatttttt tcctgctcca tgagactgt tagcttttac cttaaattgct 900  
tatttttaaa tgacagtgga agtttttttt tcctcgaagt gccagtattc ccagagtttt 960  
ggtttttgaa ctagcaatgc ctgtgaaaaa gaaactgaat acctaagatt tctgtcttgg 1020  
ggtttttggg gcatgcagtt gattacttct tatttttctt accaagtgtg aatgttgggtg 1080  
tgaaacaaat taatgaagct tttgaatcat ccctattctg tgttttatct agtcacataa 1140  
atggattaat tactaatttc agttgagacc ttctaattgg tttttactga aacattgagg 1200  
gacacaaatt tatgggcttc ctgatgatga ttcttctagg catcatgtcc tatagtttgt 1260

catccctgat	gaatgtaaa	ttacactgtt	cacaaagggt	ttgtctcctt	tccactgcta	1320
ttagtcatgg	tcactctccc	caaaatatta	tattttttct	ataaaaaaga	aaaaatggaa	1380
aaaaattaca	aggcaatgga	aactattata	aggccatttc	cttttcacat	tagataaatt	1440
actataaaga	ctcctaata	ctttttcctg	ttaaggcaga	cccagtatga	atgggattat	1500
tatagcaacc	attttggggc	tatatattaca	tgctactaaa	tttttataat	aattgaaaag	1560
attttaacaa	gtataaaaaa	attctcatag	gaattaaatg	tagtctccct	gtgtcagact	1620
gctctttcat	agtataactt	taaatctttt	cttcaacttg	agtctttgaa	gatagtttta	1680
attctgcttg	tgacattaaa	agattatttg	ggccagttat	agcttattag	gtgttgaaga	1740
gaccaagggt	gcaagccagg	ccctgtgtga	accttgagct	ttcatagaga	gtttcacagc	1800
atggactgtg	tgccccacgg	tcatccgagt	ggttgtagca	tgcatgggtt	agtcaaaaaa	1860
ggggagggac	tagggcagtt	tggatagctc	aacaagatac	aatctcactc	tgtgggtggtc	1920
ctgctgacaa	atcaagagca	ttgcttttgt	ttcttaagaa	aacaaactct	tttttaaaaa	1980
ttacttttaa	atattaactc	aaaagttgag	attttggggt	ggtggtgtgc	caagacatta	2040
attttttttt	taaacaatga	agtgaaaaaa	ttttacaatc	tctaggtttg	gctagtcttc	2100
ttaacactgg	ttaaattaac	attgcataaa	cactttttcaa	gtctgatcca	tatttaataa	2160
tgcttttaaa	taaaaataaa	aacaatcctt	ttgataaatt	taaaatgtta	cttatttttaa	2220
aataaatgaa	gtgagatggc	atggtgaggt	gaaagtatca	ctggactagg	ttgttggtga	2280
cttaggttct	agatagggtg	cttttagggc	tctgattttg	aggacatcac	ttactatcca	2340
tttcttcatg	ttaaaagaag	tcattctcaa	ctcttagttt	ttttttttta	cactatgtga	2400
tttatattcc	atttacataa	ggatacactt	atttgtcaag	ctcagcacia	tctgtaaaatt	2460
tttaacctat	gttacaccat	cttcagtgcc	agtcttgggc	aaaattgtgc	aagaggtgaa	2520
gtttatattt	gaatatccat	tctcgtttta	ggactcttct	tccatattag	tgtcatcttg	2580
cctccctacc	ttccacatgc	cccatgactt	gatgcagttt	taatacttgt	aattccccta	2640
accataagat	ttactgctgc	tgtggatatt	tccatgaagt	tttcccactg	agtcacatca	2700
gaaatgcctt	acatcttatt	ttcctcaggg	ctcaagagaa	tctgacagat	accataaagg	2760
gatttgacct	aatcactaat	tttcagggtg	tggctgatgc	tttgaacatc	tctttgctgc	2820
ccaatccatt	agcgacagta	ggattttttca	accctggtat	gaatagacag	aaccctatcc	2880
agtggaagga	gaatttaata	aagatagtg	agaaagaatt	ccttaggtta	tctataaacta	2940
ggactactcc	tggtaacagt	aatacattcc	attgttttag	taaccagaaa	tcttcatgca	3000
atgaaaaata	ctttaattca	tgaagcttac	tttttttttt	ttggtgtcag	agtctcgctc	3060
ttgtcaccca	ggctggaatg	cagtggcgcc	atctcagctc	actgcaacct	tccatcttcc	3120
caggttcaag	cgattctcgt	gcctcggcct	cctgagtagc	tgggattaca	ggcgtgtgca	3180
ctacactcaa	ctaatttttg	tatttttagg	agagacgggg	tttcacctgt	tggccaggct	3240
ggtctcgaac	tcttgacctc	aagtgattca	cccacttggg	cctcataaac	ctgtttttgca	3300
gaactcattt	attcagcaaa	tatttattga	gtgcctacca	gatgccagtc	accgcacaag	3360
gcactgggta	tatggatatcc	ccaaacaaga	gacataatcc	cggtccttag	gtactgctag	3420
tgtggtctgt	aatatcttac	taaggccttt	ggtatacgac	ccagagataa	cacgatgcgt	3480
attttagttt	tgcaaagaag	gggtttgggtc	tctgtgccag	ctctataaatt	gttttgctac	3540
gattccactg	aaactcttcg	atcaagctac	tttatgtaaa	tcacttcatt	gttttaaaagg	3600
aataaaacttg	atttatattg	ttttttattt	ggcataactg	tgattctttt	aggacaatta	3660
ctgtacacat	taagggtgat	gtcagatatt	catattgacc	caaatgtgta	atattccagt	3720
tttctctgca	taagtaatta	aaatataact	aaaaattaat	agttttatct	gggtacaaaat	3780
aaacagtgcc	tgaactagtt	cacagacaag	ggaaacttct	atgtaaaaat	cactatgatt	3840
tctgaattgc	tatgtgaaac	tacagatctt	tggaaacttg	tttaggtagg	gtgttaagac	3900
ttgacacagt	acctcgtttc	tacacagaga	aagaaatggc	catacttcag	gaactgcagt	3960
gcttatgagg	ggatatattag	gcctcttgaa	tttttgatgt	agatgggcat	ttttttaagg	4020
tagtggttaa	ttacctttat	gtgaactttg	aatggtttaa	caaaagattt	gtttttgtag	4080
agattttaaa	gggggagaat	tctagaaata	aatgttacct	aattattaca	gccttaaaaga	4140
caaaaatcct	tgttgaagtt	tttttaaaaa	aagactaaat	tacatagact	taggcattaa	4200
catgtttgtg	gaagaatata	gcagacgtat	attgtatcat	ttgagtgaat	gttcccaagt	4260
aggcattcta	ggctctattt	aactgagtca	cactgcatag	gaatttagaa	cctaactttt	4320
ataggttatc	aaaactgttg	tcaccattgc	acaattttgt	cctaataatat	acatagaaac	4380
tttgtggggc	atgttaagtt	acagtttgca	caagttcatc	tcatttggtat	tccattgatt	4440
tttttttttc	ttctaaacat	tttttcttca	aaacagtata	tataactttt	tttaggggat	4500
tttttttaga	cagcaaaaaa	ctatctgaag	atttccattt	gtcaaaaaag	aatgattttct	4560
tgataattgt	gtagtgaatg	tttttttagaa	cccagcagtt	accttgaaag	ctgaattttat	4620
atntagtaac	ttctgtgtta	atactggata	gcattgaattc	tgcattgaga	aactgaatag	4680

```

ctgtcataaa atgctttctt tcctaaagaa agatactcac atgagttctt gaagaatagt 4740
cataactaga ttaagatctg tgttttagtt taatagtttg aagtgctgt ttgggataat 4800
gataggtaat ttagatgaat ttaggggaaa aaaaagtatt ctgcagttat gttgagggcc 4860
catctctccc cccacacccc cacagagcta actgggttac agtgttttat ccgaaagtgt 4920
ccaattccac tgtcttgtgt tttcatgttg aaaatacttt tgcatttttc ctttgagtgc 4980
caatttctta ctagtactat ttcttaatgt aacatgttta cctggcctgt cttttaacta 5040
tttttgata gtgtaaactg aaacatgcac atttgtaca ttgtgctttc ttttggtggg 5100
catatgcagt gtgatccagt tgttttccat catttggttg cgctgacctt ggaatgttg 5160
tcatatcaaa cattaaaaat gaccactctt ttaatgaaat taacttttaa atgtttatag 5220
gagtatgtgc tgtgaagtga tctaaaaatt gtaatatatt tgatcatgaac tgtactactc 5280
ctaattattg taatgtaata aaaaatagtt cagtgactat gagtgtgtat ttattcatgc 5340
aaatttgaac tgtttgcccc gaaatggata tggatacttt ataagccata gacactatag 5400
tataccagtg aatcttttat gcagcttggt agaagtatcc ttttattttc taaaagggtgc 5460
tgtggatatt atgtaaaggc gtgtttgctt aaacaatttt ccatatttag aagtagatgc 5520
aaaacaaatc tgcctttatg acaaaaaaat aggataacat tatttattta tttcctttta 5580
tcaataagggt aattgataca caacagggtga cttggtttta ggcccaaagg tagcagcagc 5640
aacattaata atggaaataa ttgaatagtt agttatgtat gttaatgcca gtcaccagca 5700
ggctatttca aggtcagaag taatgactcc atacatatta tttatttcta taactacatt 5760
taaatcatta ccagg 5775

```

<210> 7  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

```

<400> 7
Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Cys Gly Val Gly Lys
 1          5          10          15
Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
          20          25          30
Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
          35          40          45
Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr
          50          55          60
Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
65          70          75          80
Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr
          85          90          95
Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val
          100          105          110
Leu Val Gly Asn Lys Cys Asp Leu Pro Ser Arg Thr Val Asp Thr Lys
          115          120          125
Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Phe Ile Glu Thr
          130          135          140
Ser Ala Lys Thr Arg Gln Gly Val Asp Asp Ala Phe Tyr Thr Leu Val
145          150          155          160
Arg Glu Ile Arg Lys His Lys Glu Lys Met Ser Lys Asp Gly Lys Lys
          165          170          175
Lys Lys Lys Lys Ser Lys Thr Lys Cys Val Ile Met
          180          185

```

<210> 8  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> unknown  
 <222> 12  
 <223> Xaa = any amino acid

<400> 8  
 Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Xaa Gly Val Gly Lys  
 1 5 10 15  
 Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr  
 20 25 30  
 Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly  
 35 40 45  
 Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr  
 50 55 60  
 Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys  
 65 70 75 80  
 Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr  
 85 90 95  
 Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val  
 100 105 110  
 Leu Val Gly Asn Lys Cys Asp Leu Pro Ser Arg Thr Val Asp Thr Lys  
 115 120 125  
 Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Phe Ile Glu Thr  
 130 135 140  
 Ser Ala Lys Thr Arg Gln Gly Val Asp Asp Ala Phe Tyr Thr Leu Val  
 145 150 155 160  
 Arg Glu Ile Arg Lys His Lys Glu Lys Met Ser Lys Asp Gly Lys Lys  
 165 170 175  
 Lys Lys Lys Lys Ser Lys Thr Lys Cys Val Ile Met  
 180 185

<210> 9  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> unknown  
 <222> 13  
 <223> Xaa = any amino acid

<400> 9  
 Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Cys Xaa Val Gly Lys  
 1 5 10 15  
 Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr  
 20 25 30  
 Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly  
 35 40 45  
 Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr  
 50 55 60  
 Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys  
 65 70 75 80  
 Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr  
 85 90 95  
 Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val  
 100 105 110

Leu	Val	Gly	Asn	Lys	Cys	Asp	Leu	Pro	Ser	Arg	Thr	Val	Asp	Thr	Lys
		115					120					125			
Gln	Ala	Gln	Asp	Leu	Ala	Arg	Ser	Tyr	Gly	Ile	Pro	Phe	Ile	Glu	Thr
		130				135					140				
Ser	Ala	Lys	Thr	Arg	Gln	Gly	Val	Asp	Asp	Ala	Phe	Tyr	Thr	Leu	Val
145					150					155					160
Arg	Glu	Ile	Arg	Lys	His	Lys	Glu	Lys	Met	Ser	Lys	Asp	Gly	Lys	Lys
				165					170					175	
Lys	Lys	Lys	Lys	Ser	Lys	Thr	Lys	Cys	Val	Ile	Met				
			180					185							

<210> 10  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> unknown  
 <222> 18  
 <223> Xaa = any amino acid

Met	Thr	Glu	Tyr	Lys	Leu	Val	Val	Val	Gly	Ala	Cys	Gly	Val	Gly	Lys
1				5					10					15	
Ser	Xaa	Leu	Thr	Ile	Gln	Leu	Ile	Gln	Asn	His	Phe	Val	Asp	Glu	Tyr
			20					25					30		
Asp	Pro	Thr	Ile	Glu	Asp	Ser	Tyr	Arg	Lys	Gln	Val	Val	Ile	Asp	Gly
		35				40					45				
Glu	Thr	Cys	Leu	Leu	Asp	Ile	Leu	Asp	Thr	Ala	Gly	Gln	Glu	Glu	Tyr
	50					55				60					
Ser	Ala	Met	Arg	Asp	Gln	Tyr	Met	Arg	Thr	Gly	Glu	Gly	Phe	Leu	Cys
65					70					75					80
Val	Phe	Ala	Ile	Asn	Asn	Thr	Lys	Ser	Phe	Glu	Asp	Ile	His	His	Tyr
				85					90					95	
Arg	Glu	Gln	Ile	Lys	Arg	Val	Lys	Asp	Ser	Glu	Asp	Val	Pro	Met	Val
			100					105					110		
Leu	Val	Gly	Asn	Lys	Cys	Asp	Leu	Pro	Ser	Arg	Thr	Val	Asp	Thr	Lys
		115					120					125			
Gln	Ala	Gln	Asp	Leu	Ala	Arg	Ser	Tyr	Gly	Ile	Pro	Phe	Ile	Glu	Thr
		130				135					140				
Ser	Ala	Lys	Thr	Arg	Gln	Gly	Val	Asp	Asp	Ala	Phe	Tyr	Thr	Leu	Val
145					150					155					160
Arg	Glu	Ile	Arg	Lys	His	Lys	Glu	Lys	Met	Ser	Lys	Asp	Gly	Lys	Lys
				165					170					175	
Lys	Lys	Lys	Lys	Ser	Lys	Thr	Lys	Cys	Val	Ile	Met				
			180					185							

<210> 11  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> unknown  
 <222> 61

<223> Xaa = any amino acid

<400> 11

Met	Thr	Glu	Tyr	Lys	Leu	Val	Val	Val	Gly	Ala	Cys	Gly	Val	Gly	Lys
1				5					10					15	
Ser	Ala	Leu	Thr	Ile	Gln	Leu	Ile	Gln	Asn	His	Phe	Val	Asp	Glu	Tyr
			20					25					30		
Asp	Pro	Thr	Ile	Glu	Asp	Ser	Tyr	Arg	Lys	Gln	Val	Val	Ile	Asp	Gly
		35					40					45			
Glu	Thr	Cys	Leu	Leu	Asp	Ile	Leu	Asp	Thr	Ala	Gly	Xaa	Glu	Glu	Tyr
	50					55				60					
Ser	Ala	Met	Arg	Asp	Gln	Tyr	Met	Arg	Thr	Gly	Glu	Gly	Phe	Leu	Cys
65					70					75					80
Val	Phe	Ala	Ile	Asn	Asn	Thr	Lys	Ser	Phe	Glu	Asp	Ile	His	His	Tyr
				85					90					95	
Arg	Glu	Gln	Ile	Lys	Arg	Val	Lys	Asp	Ser	Glu	Asp	Val	Pro	Met	Val
			100					105					110		
Leu	Val	Gly	Asn	Lys	Cys	Asp	Leu	Pro	Ser	Arg	Thr	Val	Asp	Thr	Lys
		115					120					125			
Gln	Ala	Gln	Asp	Leu	Ala	Arg	Ser	Tyr	Gly	Ile	Pro	Phe	Ile	Glu	Thr
	130					135					140				
Ser	Ala	Lys	Thr	Arg	Gln	Gly	Val	Asp	Asp	Ala	Phe	Tyr	Thr	Leu	Val
145					150				155						160
Arg	Glu	Ile	Arg	Lys	His	Lys	Glu	Lys	Met	Ser	Lys	Asp	Gly	Lys	Lys
				165					170					175	
Lys	Lys	Lys	Lys	Ser	Lys	Thr	Lys	Cys	Val	Ile	Met				
			180					185							

<210> 12

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> artificial human K-ras antisense oligonucleotide  
with phosphorothioate linkages

<400> 12

ctacgccaac agctcca

17

<210> 13

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> artificial human K-ras antisense oligonucleotide  
with phosphorothioate linkages

<400> 13

ctacgccacg agctcca

17

<210> 14

<211> 17

<212> DNA

<213> Artificial Sequence



<220>  
 <223> artificial human K-ras antisense oligonucleotide  
 with phosphorothioate linkages

<400> 14  
 ctacgccatc agctcca 17

<210> 15  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> artificial antisense K-ras artificial  
 oligonucleotide, with phosphorothioate linkages

<400> 15  
 cacaagttta tatttcagt 18

<210> 16  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> artificial mismatched antisense K-ras artificial  
 oligonucleotide

<400> 16  
 cacttgcaaa tatttcagt 18

<210> 17  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> artificial scrambled antisense artificial  
 oligonucleotide

<400> 17  
 actagctata ctagctat 18